

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method at a mobile station of adjusting the power headroom in [[a]] the mobile station, comprising:

receiving a load indication from a base station indicative of a reverse link load;
determining an amount by which to adjust a power headroom threshold of the mobile
station, based on said load indication, wherein said power headroom threshold
defines the amount of transmit power reserved at the mobile station for making
data retransmissions under Automatic Repeat reQuest (ARQ) control; and
adjusting the power headroom threshold of the mobile station according to said
determined amount based on the load indication.

2. (Original) The method of claim 1 wherein receiving a load indication from a base station comprises receiving the load indication in an upper layer message.

3. (Original) The method of claim 2 wherein the upper layer message is received over a common control channel.

4. (Original) The method of claim 1 wherein receiving a load indication from a base station comprises receiving a periodic load indication.

5. (Currently amended) The method of claim 4 further comprising filtering the periodic load indications received over two or more periods to generate a filtered load estimate, and wherein
said determining an amount by which to adjust the power headroom threshold comprises

determining the amount by which to adjust the power headroom threshold as a function of the filtered load estimate.

6. (Cancel).

7. (Currently amended) The method of claim 4 further comprising calculating a load tracking value based on two or more periodic load indications, and wherein said determining an amount by which to adjust the power headroom threshold comprises determining the amount by which to adjust the power headroom threshold as a function of the load tracking value.

8. (Original) The method of claim 7 wherein calculating a load tracking value based on two or more periodic load indications comprises calculating a weighted average of two or more periodic load indications.

9. (Original) The method of claim 7 wherein calculating a load tracking value based on two or more periodic load indications comprises calculating a running average of two or more periodic load indications over a sliding time window.

10. (Original) The method of claim 7 wherein calculating a load tracking value based on two or more periodic load indications comprises evaluating a continuous load tracking function that converts discrete periodic load indications from the base station to a continuous load tracking value.

11. (Cancel).

12. (Currently amended) The method of claim [[11]]7 wherein said determining the amount by which to adjust the power headroom threshold as a function of the load tracking value comprises adjusting the power headroom threshold linearly based on changes in the load tracking value.

13. (Currently amended) The method of claim [[11]] wherein said determining the amount by which to adjust the power headroom threshold as a function of the load tracking value comprises adjusting the power headroom threshold non-linearly based on changes in the load tracking value.

14. (Currently amended) A mobile station comprising:

 a receiver for receiving a load indication from a base station, said load indication indicative of a reverse link load;

 a transmitter for transmitting signals to the base station at a variable data transmission rate dependent on the load indication; and

 a controller to determine an amount by which to adjust a power headroom threshold of the transmitter, based on said load indication, and to adjust the power headroom threshold according to said determined amount, wherein said power headroom threshold defines the amount of transmit power reserved for the transmitter for making data retransmissions under Automatic Repeat reQuest (ARQ) control vary a power headroom threshold for the transmitter based on the load indication from the base station.

15. (Original) The mobile station of claim 14 wherein the power headroom threshold limits the data transmission rate of the mobile station.

16. (Original) The mobile station of claim 14 wherein the load indication is received from the base station in an upper layer message.

17. (Original) The mobile station of claim 14 wherein the load indication is a periodic load indication.

18. (Currently amended) The mobile station of claim 17 wherein the controller calculates a load tracking value based on two or more periodic load indications and wherein said determining an amount by which to adjust the power headroom threshold comprises determining the amount by which to adjust determines the power headroom threshold as a function of the load tracking value.

19. (Original) The mobile station of claim 18 wherein calculating a load tracking value based on two or more periodic load indications comprises calculating a weighted average of two or more periodic load indications.

20. (Original) The mobile station of claim 18 wherein calculating a load tracking value based on two or more periodic load indications comprises calculating a running average of two or more periodic load indications over a sliding time window.

21. (Original) The mobile station of claim 18 wherein calculating a load tracking value based on two or more periodic load indications comprises evaluating a continuous load tracking function that converts discrete periodic load indications from the base station to a continuous load tracking value.
22. (Original) The mobile station of claim 18 wherein the controller adjusts the power headroom threshold linearly based on changes in the load tracking value.
23. (Original) The mobile station of claim 18 wherein the controller adjusts the power headroom threshold non-linearly based on changes in the load tracking value.
24. (Previously presented) A method of adjusting a power headroom threshold in a mobile station comprising:
 - counting the number of times the mobile station is power limited for a retransmission of a frame; and
 - adjusting a power headroom threshold of the mobile station based on the count.
25. (Original) A mobile station comprising:
 - a transmitter for transmitting signals to the base station at a variable data transmission rate;
 - a power outage counter for counting the number of times that the mobile station is power limited for a retransmission of a frame; and
 - a controller to vary a power headroom threshold of the mobile station based on the count.